

Amendments to the claims:

Claims 1 - 20 were canceled. Claims 21-43 are pending. Claims 21 - 24, 33, and 35 have been amended. New claims 40 - 43 have been added.

Listing of the claims:

Claims 1 - 20 (Canceled)

21. (Currently Amended) A method of servicing an air cleaner; the method comprising steps of:
- (a) removing a removable service cover from an air cleaner housing to expose an open end and a first serviceable filter element;
 - (i) the first serviceable filter element comprising:
 - (A) an extension of media having first and second ends, surrounding an open filter interior, extending between first and second end caps;
 - (1) the first end cap having a central air flow aperture therein in fluid flow communication with the open filter interior;
 - (2) the second end cap being a closed end cap having no aperture therethrough and comprising:
 - (I) a closed recess projecting into the ~~central-open volume~~ open filter interior from the second end of the media ~~pack~~;
 - (ii) the first serviceable filter being positioned with the closed end cap directed toward the ~~access-opening~~ open end provided by the step of removing the removable service cover;
 - (b) removing the first serviceable filter element from the air cleaner housing by drawing the serviceable filter element outwardly from the housing, by passage through the open end provided by the step of removing the ~~access~~ service cover;
 - (c) positioning a second serviceable filter element within the air cleaner housing, by passage through the open end;
 - (i) the second serviceable filter element comprising:

- (A) an extension of media having first and second ends, surrounding an open filter interior, extending between first and second end caps;
 - (1) the first end cap having a central air flow aperture therein in fluid flow communication with the open filter interior;
 - (2) the second end cap being a closed end cap having no aperture therethrough and comprising:
 - (I) a closed recess projecting into the ~~central open volume~~ open filter interior from the second end of the media ~~pack~~;
 - (ii) the step of positioning including positioning the second serviceable filter element within the housing with the closed end cap directed toward the open end; and
- (d) mounting the service cover with:
 - (i) a non-circular projection on the service cover projecting into the closed recess in the second end cap of the second serviceable filter element.

22. (Currently Amended) A method of servicing according to claim 21 wherein:

- (a) the step of removing the first serviceable filter element includes removing the first serviceable filter element from a position mounted over a first safety filter element; and
- (b) the step of positioning a second serviceable filter element comprises a step of positioning the second serviceable filter element over the first safety element.

23. (Currently Amended) A method of servicing according to claim 22 wherein:

- (a) the step of positioning a second serviceable filter element comprises positioning a second serviceable filter element with a frustoconical section in the second end cap directed toward the open end ~~access opening~~;
- (i) the step of positioning including arranging the second serviceable filter element to receive a portion of the first safety element projecting into the frustoconical section.

24. (Currently Amended) A method of servicing according to claim 21 wherein:

- (a) the step of positioning a second serviceable filter element comprises positioning a second serviceable filter element having a frustoconical section on the second end cap directed toward the open end; and
- (b) the step of mounting the ~~serviceable~~ service cover includes positioning a recess in the non-circular projection over and around the frustoconical section of the second serviceable filter element.

25. (Previously Presented) A method of servicing according to claim 24 wherein:

- (a) the step of mounting the service cover comprises mounting the service cover with a non-circular projection having at least three vertices projecting into the closed recess of the second end cap.

26. (Previously Presented) A method of servicing according to claim 21 wherein:

- (a) the step of mounting the service cover comprises mounting the service cover with a non-circular projection having at least three vertices projecting into the closed recess of the second end cap.

27. (Previously Presented) A method of servicing according to claim 21 wherein:

- (a) the step of positioning a second serviceable filter element includes the second serviceable filter element having a cylindrical extension of media.

28. (Previously Presented) A method of servicing according to claim 21 wherein:

- (a) the step of positioning a second serviceable filter element includes the second serviceable filter element having a first end cap with an internally directed radial seal region.

29. (Previously Presented) A method of servicing according to claim 21 wherein:

- (a) the step of positioning a second serviceable filter element includes the second serviceable filter element having an inner liner.

30. (Previously Presented) A method of servicing according to claim 21 further comprising:
- (a) after the step of mounting the service cover, securing the service cover to the air cleaner housing with latches.
31. (Previously Presented) A method of servicing according to claim 21 wherein:
- (a) the step of mounting the service cover includes radially aligning the service cover and the air cleaner housing by engagement between a notch on one of the service cover and air cleaner housing and post on the other of the service cover and air cleaner housing.
32. (Previously Presented) A method of servicing according to claim 21 wherein:
- (a) the step of positioning a second serviceable filter element includes the second serviceable filter element having a second end cap comprising a composite structure including:
 - (i) a pre-form defining the closed recess; and
 - (ii) an annular, molded, ring portion to which the media pack and the pre-form are secured.
33. (Currently Amended) A method of servicing an air cleaner; the method comprising:
- (a) removing a filter element from an air cleaner housing; the housing including a body and a removable cover; the cover having an inner side including a central projection thereon;
 - (b) orienting a new filter element into the air cleaner housing body; the new filter element having a media pack, and first and second, opposite, end caps;
 - (i) the first end cap having a central aperture;
 - (ii) the second end cap being a closed end cap having no aperture therethrough and comprising a composite structure including:
 - (A) a pre-form defining a recess;
 - (B) an annular, molded, ring portion to which the media pack and the pre-form are secured; and

- (c) orienting the removable cover over an open end of the housing body by extending the central projection on the cover into the recess of the pre-form.

34. (Previously Presented) A method according to claim 33 wherein:

- (a) the step of removing a filter element includes removing the filter element from a position mounted over a safety filter element; and
- (b) the step of positioning a new filter element comprises a step of positioning the second filter element over the first safety element.

35. (Currently Amended) A method according to claim 33 wherein:

- (a) the step of orienting a new filter element includes orienting the new filter element wherein the second end cap ~~comprising~~ comprises a composite structure including the pre-form with the recess and the annular, molded, ring portion to which the media pack and the pre-form are secured;
 - (i) the pre-form having a circular wall surrounded by the media pack; and a recessed central base;
 - (ii) the annular, molded, ring portion defining a portion of an outer end surface of the second end cap; and
 - (iii) the second end cap resulting from: positioning the media pack around the circular wall of the pre-form; and then potting the resulting combination of pre-form and media pack into moldable polymer such that a portion of the moldable polymer, upon molding, defines a portion of an outer surface of the second end cap.

36. (Previously Presented) A method according to claim 33 wherein:

- (a) the step of orienting the removable cover over an open end of the housing body by extending the central projection on the cover into the recess of the pre-form includes orienting a cover having a non-circular projection with at least three vertices projecting into the recessed central base of the pre-form in the second end cap.

37. (Previously Presented) A method according to claim 33 wherein:

- (a) the step of orienting a new filter element into the air cleaner housing body includes forming a radial seal between the first end cap and the air cleaner housing body.

38. (Previously Presented) A method according to claim 33 further comprising:

- (a) after the step of removing a filter element, removing a safety filter element from the air cleaner housing; and then
- (b) installing a new safety filter element in the air cleaner housing.

39. (Previously Presented) A method of installing a filter element into an air cleaner; the method comprising:

- (a) providing a filter element having a media pack defining an open volume, a first open end cap, and an opposite second end cap;
 - (i) the second end cap being a closed end cap with no aperture therethrough and including a closed recess projecting into the open volume; and
- (b) orienting an access cover having an inner side with a non-circular central projection thereon over the filter element by extending the central projection into the closed recess to support the filter element.

40. (New) A method of servicing an air cleaner; the method comprising:

- (a) removing a filter element from an air cleaner housing; the housing including a body and a removable cover; the cover having an inner side including a central projection thereon;
 - (i) the central projection including a non-circular projection with at least three vertices;
- (b) orienting a new filter element into the air cleaner housing body; the new filter element having a media pack, and first and second, opposite, end caps;

- (i) the first end cap having a central aperture;
 - (ii) the second end cap comprising a composite structure including:
 - (A) a pre-form defining a recess;
 - (B) an annular, molded, ring portion to which the media pack and the pre-form are secured; and
 - (c) orienting the removable cover over an open end of the housing body by extending the non-circular projection with at least three vertices on the cover into the recess of the pre-form.
- 41. (New) A method according to claim 40 wherein:
 - (a) the step of removing a filter element includes removing the filter element from a position mounted over a safety filter element; and
 - (b) the step of positioning a new filter element comprises a step of positioning the second filter element over the first safety element.
- 42. (New) A method according to claim 40 wherein:
 - (a) the step of orienting a new filter element into the air cleaner housing body includes forming a radial seal between the first end cap and the air cleaner housing body.
- 43. (New) A method according to claim 42 wherein:
 - (a) the step of orienting a new filter element includes orienting the new filter element wherein the second end cap comprises a composite structure including the pre-form with the recess and the annular, molded, ring portion to which the media pack and the pre-form are secured;
 - (i) the pre-form having a circular wall surrounded by the media pack; and a recessed central base;
 - (ii) the annular, molded, ring portion defining a portion of an outer end surface of the second end cap; and

- (iii) the second end cap resulting from: positioning the media pack around the circular wall of the pre-form; and then potting the resulting combination of pre-form and media pack into moldable polymer such that a portion of the moldable polymer, upon molding, defines a portion of an outer surface of the second end cap.